

**REMARKS/ARGUMENTS**

Claims 58-113 stand rejected. In the present Amendment, claims 77-95, 97, 99, 101, 104, 107, 110 and 113 have been canceled. New claims 114 to 139 have been added. It is respectfully submitted that no new matter has been introduced into the present application by the addition of the new claims. Reconsideration of the present application is respectfully requested in view of the following remarks.

**Statement of Substance of Interview**

Applicants wish to express their appreciation for the recent personal interview granted by the Examiner. The interview took place on January 10, 2006. All of the rejected claims were discussed, as well as the prior art cited in the final Office Action. It was agreed at the interview that the final rejection did not properly address the claims containing a limitation to the presence of C1 to C3 alkyl lactates (i.e., independent claims 77, 99 and 101 and the claims dependent thereon). Otherwise, no agreement was reached with respect to the remaining claims.

In the present Amendment, the claims have been reorganized so that the claims to water-dispersible liquid vitamin animal food additives that contain C4 to C6 alkyl lactates (i.e., claims 58-76, 96, 98, 100, 102, 103, 105, 106, 108, 109, 111 and 112) appear together as a first set and the claims to water-dispersible liquid vitamin animal food additives that contain C1 to C3 alkyl lactates (i.e., claims 114-139) appear together as a second set. It is hoped that the reorganization of the claims will make it easier to examine and consider the claims of the present application.

In the final Office Action dated October 20, 2005, there is a single rejection of all of the pending claims (58-113) under 35 U.S.C. §103(a). Specifically, claims 58-113 have been rejected under §103(a) as being unpatentable over Kirk (US 4,966,779) in view of each of Parfitt (Martindale, 32<sup>nd</sup> ed., pp. 1358-1359, 1366-1370), Winstrom et al. (US 3,708,583) and Pomp (US 5,935,918). This rejection is respectfully traversed for the reasons set forth below.

Initially, it is respectfully submitted that the reasoning given for the rejection shows that the Examiner could not reconstruct the compositions of the present claims without combining at least three references. Even with that combination, the Examiner could not produce a composition that had the claimed amounts of each of the required elements of the composition. To obtain the required amounts of each of the elements of the composition, the Examiner simply made the conclusory statement that the amounts recited in the claims could be obtained through routine experimentation and were therefore obvious. This is a classic case of hindsight reconstruction. As explained below, the references cited by the Examiner: (1) are not properly combinable; (2) contain no disclosure or suggestion that would motivate an artisan of ordinary skill to combine and modify the teachings of those references in the manner necessary to obtain the compositions of the present claims (and actually teach away from such a combination); and (3) provide no expectation that the combined teachings would result in a successful composition.

As the Examiner has acknowledged, the Kirk patent contains no teaching whatsoever concerning the use of an alkyl lactate in the vitamin-containing emulsions described therein. Further, the Kirk patent contains no teaching which would lead one of ordinary skill in the art to believe that an alkyl lactate could be safely added to the emulsion of the Kirk patent while still maintaining the desired properties and characteristics of the Kirk emulsion. If anything, the Kirk patent teaches away from making any changes to the composition of the emulsions described therein. For example, in the abstract of the Kirk patent it is stated that the emulsions contain “specific proportions” of the listed ingredients. At column 1, lines 19-22, of the Kirk patent it is stated that “The inventor of the formulation described herein has unexpectedly found that a particular combination of ingredients permits the formation of an emulsion which is much more stable...”. The importance of not varying the composition of the emulsion is emphasized at column 6, lines 37-53, where emulsions that used all of the listed ingredients in the ranges specified in the patent were compared to: (1) emulsions missing one or more of those ingredients; and (2) emulsions that contained all of the listed ingredients but wherein one or more of the listed ingredients was not present in an amount that was within the specified range for that ingredient. As discussed at column 6, lines 48-53, and shown in Table 1, even slight variations in the composition of the emulsions led to the loss of the desirable properties and the

exhibition of certain undesirable characteristics. Accordingly, there is no teaching in the Kirk patent that would motivate an artisan of ordinary skill to modify the composition of the emulsions described therein and, even if an artisan somehow found the requisite motivation to modify the composition of the emulsions, that artisan would not have an expectation of success because the Kirk patent teaches that even minor modifications to the composition of the emulsions leads to a loss of their desired properties and the exhibition of certain undesirable characteristics.

The Examiner pointed to the teachings at column 4, lines 23-27, and argued that Kirk teaches that preservatives, for example, may be optionally added to the composition and that this showed that “other components” may, optionally, be added to the composition without adverse effect. What the Examiner overlooked was that preservatives are the only class of substances that are disclosed as being “optional” in the Kirk formulation and the reason for this is that the permissible amounts of preservatives are extremely small (i.e., 0.01 to 0.1 weight percent). Such a small amount of added material does not have any significant impact on the amounts of the other ingredients in the formulation. Thus, this teaching supports applicant’s position not the Examiner’s position.

The Examiner has apparently realized that the Kirk patent does not contain any teachings that would motivate one of ordinary skill to add an alkyl lactate to the emulsions described therein. In an attempt to overcome this problem, the Examiner has cited the Winstrom et al. patent to show that in the vitamin composition described therein, flavoring additives are a possible addition to the composition. However, there is no teaching in the Winstrom et al. patent about the identity or the amount of the flavoring agent that would be acceptable. Thus, even assuming arguendo that the teachings of the Winstrom et al. patent could be properly combined with the teachings of the Kirk patent, there would still be no teaching that an alkyl lactate could be added to the composition of the Kirk patent as a flavoring agent and no teaching about how much alkyl lactate would be suitable as a flavoring agent in an emulsion of the type described in the Kirk patent.

In an attempt to overcome the shortcomings of the combined teachings of Kirk and Winstrom et al., the Examiner has cited the Pomp patent, arguing that the Pomp patent teaches that butyl lactate is an FDA approved flavor additive. However, the Examiner makes no mention of the fact that the Pomp patent does not contain any disclosure that butyl lactate would be suitable for use in vitamin compositions for animals. Further, the Examiner makes no mention of the fact that the Pomp patent is directed to the use of butyl lactate (and/or amyl lactate) as a solvent for detaching fouling residue from the bore of a firearm. The teaching of the Pomp patent as a whole is directed to a completely different and unrelated field of use for butyl lactate. There is no question that this patent would not be considered (i.e., by a person of skill in this art) as being part of the teachings of the pertinent or relevant art to the invention of the present application or the inventions described in Kirk and Winstrom et al. As such, it is not proper to combine the teachings of this patent with the teachings of Kirk or Winstrom et al.

In addition to the arguments made above, it is respectfully submitted that the Pomp patent does not provide any teaching of how much butyl lactate to use in a liquid vitamin emulsion or composition. The only teaching of the amount of butyl lactate to use in the Pomp patent is solutions that contain about 75% by weight butyl lactate (to be used as firearm cleaning solutions). Thus, even assuming arguendo that the teachings of the Pomp patent could be somehow combined with the teachings of Winstrom et al. and Kirk, there is still no teaching of how much butyl lactate to use in such vitamin formulations.

Still further, the formulations of the Winstrom et al. patent are alcohol based. This is a different type of vitamin formulation than the formulations of the present invention and the Kirk patent. One of the specific objects of the present invention was to avoid the use of the same types of alcohols that are used in Winstrom et al. because they are flammable. Thus, an artisan of ordinary skill would realize that the formulations of Winstrom et al. and Kirk are different classes of vitamin formulations and would not think that it was appropriate to combine the teachings of the two patents.

In addition, the teaching in Winstrom et al. relied upon by the Examiner relates to the use of flavoring agents in the formulations of Winstrom et al. It is respectfully submitted that although Winstrom et al. generally teaches that “flavoring agents” can be added to the compositions of that patent, there is no general teaching that flavoring agents can be added to any vitamin composition, especially ones that are not based on alcohols. Further, there is no teaching in Winstrom et al. of the types of flavoring agents that can be used. In fact, Winstrom et al. does not identify a single specific flavoring agent and contains no disclosure at all concerning the amounts of flavoring agent that are useful or desirable. Therefore, it is respectfully submitted that, at best, Winstrom et al. makes it obvious to try flavoring agents in alcohol based vitamin formulations of the type specifically disclosed in Winstrom et al. As the Examiner is no doubt aware, teachings that make it “obvious to try” something are not sufficient to establish a *prima facie* case of obviousness under U.S. patent law.

Finally, in addition to all of the other arguments made above, it is respectfully submitted that the Kirk patent teaches away from the addition of any flavoring agents to the emulsions of that patent. Specifically, among the many objects of the invention described in the Kirk patent, one of the objects is to form an emulsion that has “a low flavor and odor profile” (see paragraph bridging columns 1 and 2). Thus, an artisan of ordinary skill would not be motivated to add a flavoring agent to the emulsions of the Kirk patent, since this would be counter to one of the objects of the invention of the Kirk patent.

In view of all of the above, it is respectfully submitted that the Examiner has not established a *prima facie* case of obviousness.

It is also worth noting that the additive compositions of the present invention do not use the alkyl lactates as a flavoring additive. Instead, the alkyl lactates act as solvents to lower the viscosity of the vitamin oils to a level that allows practical handling while, at the same time, keeping the flashpoint of the additive composition at about 200°F or greater. This use of C1 to C3 alkyl lactates or C4 to C6 alkyl lactates is not disclosed or suggested in the cited prior art.

It is respectfully submitted that the remaining arguments made by the Examiner are not relevant if the teachings of the Pomp patent cannot be combined with the teachings of the other references or if the teachings of the Pomp patent are deficient (e.g., since they do not teach the amount of butyl lactate to use in vitamin compositions and only teach very high percentages of butyl lactate for use in firearm cleaning solutions). Accordingly, even though applicants do not agree with the aforementioned remaining arguments, it is respectfully submitted that there is no need to address them here (except for the argument concerning the concentrations of the various components, which is briefly discussed below).

An argument was made in the Office Action that it would have been obvious to prepare a composition with the concentrations as instantly claimed because the claimed concentrations overlap with those taught by the combined references. This statement is not correct. Even assuming arguendo that the references could be combined in the manner proposed by the Examiner (which applicants submit would be improper), none of these references provide any teaching of an amount of the alkyl lactate that would overlap with the amounts recited in the present claims. For example, the Winstrom et al. patent does not provide any teaching of the amount of “flavoring agents” that should be used. The only teaching in the Pomp patent concerning the amount of butyl or amyl lactate to be used relates to their use as solvents in firearm cleaning solutions, where the lactates are the major component (usually about 75% by weight). Accordingly, there is no teaching of an amount of alkyl lactate that would overlap with the ranges recited in the present claims.

As a final matter, it was agreed at the personal interview that the rejection made in the final Office Action did not properly address the claims of the present application that were directed to formulations that contained C1 to C3 alkyl lactates. Accordingly, since there is no proper outstanding rejection concerning these claims (current claims 114 to 139), it is respectfully submitted that, unless the Examiner can find additional prior art that is relevant to these claims, they should be allowed in the next Office Action.

Reconsideration of the present application and a favorable action concerning claims 58-76, 96, 98, 100, 102, 103, 105, 106, 108, 109, 111, 112 and 114-139 is respectfully requested.

Applicant believes that no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 10892-00018-US from which the undersigned is authorized to draw.

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Respectfully submitted,

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